Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of displaying a number of computer-detected regions of pathological interest of an anatomical feature, the method comprising:

displaying an image of the anatomical feature; ~~and~~

simultaneously displaying with the image a uniquely identified marker corresponding to each computer-detected region of pathological interest;

~~wherein each marker is generated from the image by a computer-implemented detection algorithm and is configured to incorporate viewable classification data entered by a user~~displaying a first indication associated with each marker indicative of the probability that the region of the pathological interest is cancerous; and

displaying a second indication associated with each marker indicative of a classification of the region of pathological interest.

2. (Cancelled)

3. (Currently Amended) The method of claim 1, wherein the probability of cancer for each region of pathological interest is determined by a computer-implemented detection algorithm ~~determines a probability of cancer for each region of pathological interest~~.

4. (Cancelled)

5. (Currently Amended) The method of claim [[4]]3, wherein the first indication comprises the color of each marker visually indicating~~indicates~~ the probability of cancer determined by the computer-implemented detection algorithm.

6. (Currently Amended) The method of claim ~~1~~35, wherein the second indication~~viewable classification data~~ entered includes a ~~user-determined~~ classification of the computer-detected region as a false-positive detection.

7. (Currently Amended) The method of claim ~~1~~35, wherein the ~~viewable classification data~~second indication includes a user selection of the classification ~~data~~ from an electronically displayed menu of alternative classifications.

8. (Cancelled)

9. (Cancelled)

10. (Currently Amended) A method of interactively displaying a number of unique locations of pathological interest of an anatomical feature, the method comprising:

displaying an image of the anatomical feature;

simultaneously displaying with the image a uniquely identified marker corresponding to each location of pathological interest;

receiving a first user-input command that selects one of the uniquely identified markers for classification;

displaying a menu of user-selectable classification alternatives in response to the first user-input command, the classification alternatives representing physiological assessments of the region of pathological interest;

receiving a second user-input command that selects one of the user-selectable classification alternatives; and

modifying the visual appearance of the displayed marker in response to the classification alternative selected by the second user-input command.

11. (Currently Amended) The method of claim 10, wherein each marker is uniquely

identified by an alphanumeric label adjacent to the marker.

12. (Cancelled)

13. (Cancelled)

14. (Original) The method of claim 10, wherein modifying the visual appearance of the displayed marker in response to the classification alternative selected by the second user-input comprises changing the color of the displayed marker.

15. (Cancelled)

16. (Currently Amended) A system for displaying a number of unique locations of pathological interest of an anatomical feature detected by a computer-implemented detection algorithm, the system comprising:

storage media including an image of the anatomical feature and the locations of pathological interest of the anatomical feature detected by the computer-implemented detection algorithm;

a processor coupled to the storage media and operable to generate a uniquely identified marker corresponding to each computer-detected region of pathological interest, wherein each marker ~~is configured to incorporate viewable~~visually displays classification data entered by a user;

a display coupled to the processor and configured to simultaneously display the image of the anatomical feature and each marker; and

a user-input device coupled to the processor and operable to receive a selection of one of the markers and a selection of~~enter~~ classification data

wherein upon the receipt of the selection of classification data, the processor modifies the visual display of the marker.

17. (Cancelled)

18. (Currently Amended) The system of claim 16, wherein each marker is configured to be electronically stored ~~with the image in a computer-readable medium~~in the same image layer as the image of the anatomical feature in the storage media.

19. (Cancelled)

20. (Currently Amended) The system of claim 2~~1~~16, wherein the viewable classification data entered includes a user-determined classification of the computer-detected region as a false-positive detection.

21. (Original) The system of claim 16, wherein the viewable classification data includes a user selection of the classification data from an electronically displayed menu of alternative classifications.

22. (Cancelled)

23. (Original) The system of claim 16, wherein the computer-implemented detection algorithm determines a probability of cancer for each region of pathological interest.

24. (Currently Amended) The system of claim 23, wherein each marker ~~is configured to~~ visually indicates the probability of cancer determined by the computer-implemented detection algorithm.

25. (Currently Amended) The system of claim 24, wherein the color of each marker visually indicates the probability of cancer determined by the computer-implemented detection algorithm.

26. (Currently Amended) A marker for use with a graphical user interface for uniquely identifying a location of pathological interest, the marker comprising:

a unique identifier for the location of pathological interest; ~~and~~

a visual indication of the probability of cancer for the location of pathological interest; and

~~wherein the marker is configured to incorporate viewable classification data based on user input~~a visual indication of classification data based on user input.

27. (Currently Amended) The marker of claim 26, wherein the unique identifier comprises an alphanumeric label adjacent to the marker.

28. (Cancelled)

29. (Currently Amended) The marker of claim 26, wherein the ~~viewable~~ classification data includes a user selection of the classification data from an electronically displayed menu of alternative classifications.

30. (Cancelled)

31. (Currently Amended) The marker of claim ~~26~~29, wherein the viewable classification data includes a user-determined classification of the region as a false-positive detection.

32. (Currently Amended) The marker of claim ~~26~~29, wherein the viewable classification data includes a user-determined classification of the region as a cyst.

33. (Currently Amended) The marker of claim 29~~26~~, wherein the viewable classification data includes a user-determined classification of the region as a nodule.

34. (Currently Amended) The marker of claim 29~~26~~, wherein the viewable classification data includes a user-determined classification of the region as a microcalcification.

35. (New) The method of claim 1 wherein a user enters the classification of the region of pathological interest.

36. (New) The method of claim 1 wherein the classification of the region of pathological interest is a physiological assessment of the region of pathological interest.

37. (New) The method of claim 36 wherein the second indication comprises the shape of each marker visually indicating the classification of the region of pathological interest.

38. (New) The method of claim 10 wherein the menu comprises the classification alternatives of: microcalcification, nodule, and cyst.

39. (New) The method of claim 10 wherein the step of modifying the visual appearance of the displayed marker comprises changing the shape of the marker.

40. (New) The method of claim 10 wherein the step of modifying the visual appearance of the displayed marker comprises adding an alphanumeric indicator to the marker.

41. (New) The system of claim 21, wherein the menu of alternative classifications comprises at least one physiological assessment of the location of pathological interest.

42. (New) The system of claim 41, wherein the processor modifies the color of the marker in response to receipt of a selection of a physiological assessment of the location of pathological interest.

43. (New) The marker of claim 26 where the classification data is a physiological assessment of the location of pathological interest.

44. (New) The marker of claim 43 wherein the visual indication of the classification data comprises data comprises the shape of the marker.

45. (New) The marker of claim 43 wherein the visual indication of the classification data comprises the shape of the marker.

46. (New) The marker of claim 29 wherein the menu of alterative classifications comprises at least one physiological assessment of the location of pathological interest and at least one clinical assessment of the location of pathological interest.